

22. (New) The method of Claim 15, wherein the surfactant other than the compound of formula (1) is at least one surfactant selected from the group consisting of anionic, nonionic and amphoteric surfactants.

23. (New) The method of Claim 15, wherein the surfactant other than the compound of formula (1) is a cationic surfactant.

REMARKS

Claims 11 and 12 have been canceled. Claims 1-10 and new Claims 13 to 23 remain active in the case. Reconsideration is respectfully requested.

The present invention relates to a hair cosmetic composition.

Claim Rejection, 35 USC 112

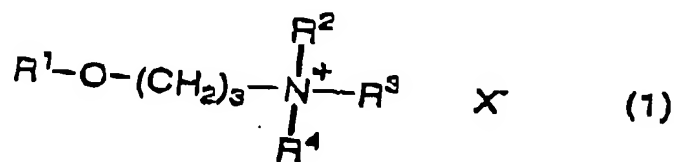
Claims 1 and 2 have been amended by deleting the term "type" therefrom. Further, the proviso clause in Claim 1 has been deleted in favor of alternative language which is believed sufficient to clarify the claim.

Applicants do not concur that Claims 1 and 2 are indefinite because no other components of a cosmetic composition other than the active ether functional group containing cationic surfactant are described in the claim. The claims are clearly open-ended claims by virtue of the use of the term comprising. Thus, other cosmetically compatible ingredients could be incorporated in a composition that is within the scope of present claims 1 and 2 to complete a given cosmetic formulation. There is nothing indefinite about the language of the claim in describing a hair cosmetic or cleansing composition that contains the specific cationic surfactant of the invention. Accordingly, withdrawal of this reason for rejecting the claims as indefinite is respectfully requested.

Claim Amendments

Claim 1 has been amended in order to correct a minor obvious error in the grammar of the claim. Other very minor amendments have been made to Claims 3-5 and 7. Claims 11 and 12 have been canceled in favor of new Claims 13 and 17. New dependent Claims 14-16 are based on original Claims 2-4. New Claim 18 has been presented in which the definition of R³ is limited to benzyl and -(A'O)_nH. New Claims 19 and 20 have been added wherein Claim 19 is a combination of Claims 1-4 and Claim 20 is a combination of Claims 13 and 2-4. New dependent Claim 21 is similar to original Claim 4 except that the claim lacks a cationic surfactant type. New dependent Claim 22 is based on original Claim 4 except that the claim lacks a cationic surfactant type. New dependent Claim 23 is based on original Claim 5. Entry of the amendments and new claims is respectfully requested

One aspect of the invention is directed to a hair cosmetic composition comprising an ether functional group containing cationic surfactant represented by formula (1):



wherein,

R¹ represents a linear or branched C₆₋₂₄ alkyl or alkenyl group,

R² and R⁴ each represents a C₁₋₆ alkyl group or -(A'O)_nH in which A represents a C₂₋₄ alkylene group and n is a number from 1 to 6 wherein individual A radicals are the same or different and are in any sequence,

R^3 represents a C_{1-6} alkyl group, a benzyl group or $-(A'O)_mH$ in which A' represents a C_{2-4} alkylene group and m is a number from 1 to 6 wherein individual A' radicals are the same or different and are in any sequence, and

X^- represents an anion.

Another aspect of the invention is directed to a hair cleansing composition based on the formulation of Claim 1.

Claim 13, as a replacement for Claim 11, is directed to a method of treating the hair with a composition containing the cationic surfactant of original Claim 1, while new Claim 17, as a replacement for Claim 12, is a method of shampooing the hair using the composition of Claim 7.

Prior Art Rejection

The JP '928 reference discloses a cationic surfactant containing hair conditioning composition that is said to contain a cationic ammonium surfactant that contains ether functionality. However, the scope of the cationic ammonium compound disclosed is limited to the type in which a fatty hydrocarbon group is attached to at least one oxyethylene unit, whereas the ammonium salt of the present invention contains one, and only one, of an oxypropylene group attached to the quaternized ammonium nitrogen atom. This difference is not trivial, especially in light of the fact that the reference only exemplifies a quaternary ammonium salt in which the ether bearing group attached to the nitrogen atom contains four successively linked oxyethylene groups. Thus, the only ammonium compound shown in the reference is an oxyethylene oligomer, while the ammonium compound to which the present claims (1, 7, 13 and 17) are limited bears a fatty group attached to one oxypropylene group. No oligomeric oxyalkylene structure is shown in the reference in a group attached to a

quaternized nitrogen atom. Such is believed not to be obvious in view of the limited teachings of the reference.

As to the Harry's Cosmetology document, the Examiner refers to the quaternized ammonium compounds disclosed on page 507 of the document. However, these compounds, as cationic surfactants, are quite different from the specific cationic surfactant of the present claims as well as the cationic surfactant disclosed in JP '928. Certainly, Harry's does not bring the composition disclosed in '928 closer to the present invention. Note that one quaternary ammonium salt contains an amide, not an ether, linking group in the fatty group bearing substituent, while the first of the quaternary ammonium salts shown contains three polyoxyethylene groups attached to the nitrogen atom. Accordingly, Harry's does not improve upon the deficiencies of '928 and withdrawal of the obviousness ground of rejection is respectfully requested.

It is now believed that the application is in proper condition for allowance. Early notice to this effect is earnestly solicited.

Respectfully submitted,

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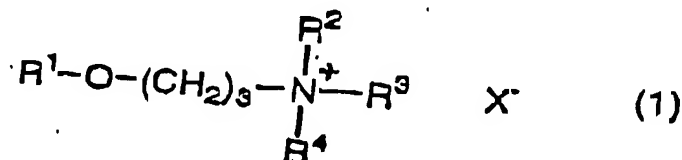
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MARKED-UP COPY OF THE AMENDMENT

IN THE CLAIMS

Please amend the claims as follows:

-- 1. (Amended) A hair cosmetic composition, comprising: an ether [type] functional group containing cationic surfactant represented by [the following] formula (1):



wherein,

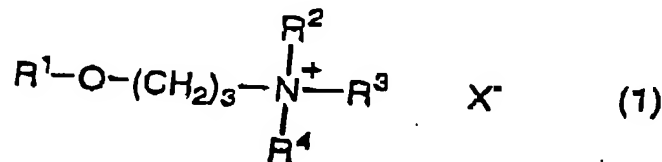
R^1 represents a linear or branched $[C_{1-24}] C_{6-24}$ alkyl or alkenyl group,

R^2 and R^4 each represents a C_{1-6} alkyl group or $-(AO)_nH$ [(] in which A represents a C_{2-4} alkylene group and n [stands for] is a number from 1 to 6 [with the proviso that n pieces of] wherein individual A radicals [may be] are the same or different and are in any sequence [thereof is optional)],

R^3 represents a C_{1-6} alkyl group, a benzyl group or $-(A'O)_mH$ [(] in which A' represents a C_{2-4} alkylene group and m [stands for] is a number from 1 to 6 [with the proviso that n pieces of] wherein individual A' radicals [may be] are the same or different and are in any sequence [thereof is optional)], and

X^- represents an anion.

2. (Amended) The hair cosmetic composition of Claim 1, which contains the ether [type] functional group containing cationic surfactant of [the] formula (1) in an amount of 0.1 to 20 wt %.
3. (Amended) The hair cosmetic composition of Claim 1, further [contain]g comprising a surfactant other than the compound of [the] formula (1).
4. (Amended) The hair cosmetic composition of Claim 3, wherein the surfactant other than the compound of [the] formula (1) is at [lest] least one surfactant selected from the group consisting of cationic, anionic, nonionic and amphoteric surfactants.
5. (Amended) The hair cosmetic composition of Claim 4, wherein the surfactant other than the compound of [the] formula (1) is a cationic surfactant.
7. (Amended) [The] A hair cleansing composition [of claim 1], which comprises:
- (a) an ether [type] functional group containing cationic surfactant represented by formula (1):



wherein

R¹ represents a linear or branched C₆₋₂₄ alkyl or alkenyl group.

R² and R⁴ each represents a C₁₋₆ alkyl group or -(AO)_nH in which A represents a C₂₋₄ alkylene group and n is a number from 1 to 6 wherein individual A radicals are the same or different and are in any sequence.

R³ represents a C₁₋₆ alkyl group, a benzyl group or -(A'O)_mH in which A' represents a C₂₋₄ alkylene group and m is a number from 1 to 6 wherein individual A' radicals are the same or different and are in any sequence, and

X⁻ represents an anion; and

(b) at least one surfactant selected from the group consisting of cationic, anionic, nonionic and amphoteric surfactants.

Please cancel Claims 11 and 12 and add new Claims 13 to 23 as follows:

Claims 13 to 23. (Newly Added)